

and those of the proximal region very small. The inner margin of mandible below first lamella is finely toothed or fringed for a short distance.

Anteroectal corner of coxa of first maxilla strongly rounded. Distal joint of palpus of second maxilla densely setose. Posterior angles of coxosterna of second maxillæ rather long, slenderly acute.

Prosternum with two teeth truncate close to base, being very low and broad. Femuroid with a single tooth, this at distal end, noduliform. Next two joints also armed, the tooth of each small and nodular. Claw with a low, obtusely angular, prominence at base.

Sternal impressions distinct, furcate, the angle acute.

Sternite of pregenital segment strongly narrowed caudad, the sides a little incurved, the caudal margin narrow. Coxopleural pores numerous, small and very small.

Number of pairs of legs, forty-one.

Length, to about 60 mm.

A 1919 COLLECTION OF CICADELLIDÆ IN THE ENVIRONS OF BOSTON.

BY GEORGE W. BARBER,

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The following list of leaf-hoppers represents a collection made entirely during the second half of the 1919 collecting season in towns usually nor further than fifteen miles distant from the State House in Boston, Mass. It represents only very incomplete collections, mostly specimens hastily taken at odd moments while engaged in other work.

Very little appears to have been done in determining the Cicadellid fauna of Massachusetts in any systematic manner, and the present list may be regarded as an introduction to a more complete study of these insects in the state.

It is well known that the years spent in actively combating injurious insects such as the gypsy and brown-tail moths, the elm leaf beetle, and the European corn-borer in this section have left a very noticeable effect on the prevalence of the leaf-eating insects.

It is interesting, therefore, to notice that the effect on sucking insects is evidently not so marked for the accompanying list of fifty-five species and varieties, representing twenty-six genera, taken so unsystematically during but half of one season, cannot nearly represent the total fauna, in this group, that are present.

Two European species, *Deltcephalus striatus* Linn., and *Allygus mixtus* Fabr., are herein reported both taken in the Town of Medford.

I am indebted to Mr. E. H. Gibson, U. S. National Museum, and especially to Mr. D. M. DeLong of Harrisburg, Pa., for kind assistance in determination of species unknown to me.

CICADELLIDÆ.

BYTHOSCOPINÆ.

1767—*Agallia sanguinolenta* (Prov.).

Medford, September 18; Everett, September 30.

1793—*Idiocerus scurra* (Germ.).

Cambridge, September 13.

CICADELLINÆ.

1854—*Cicadella hieroglyphica* (Say).

Medford, August 26; Woburn, September 26.

1855—*Cicadella gothica* (Sign.).

Woburn, September 25.

1859—*Kolla bifida* (Say).

Medford, August 21–26.

1863—*Helocarda communis* Fitch.

Medford, September 24; Woburn, September 26; Melrose, November 11.

1864—*Graphocephala coccinea* (Forst.).

Woburn, August 20; Medford, August 26; Cambridge, September 22.

1874—*Draculacephala mollipes* (Say).

Medford, August 20, 21, 26, September 18, October 15.

1879—*Draculacephala noreboracensis* Fitch.

Medford, August 21.

GYPONINÆ.

1879—*Gypona 8-lineata* (Say).
West Medford, August 26, October 7.

1898—*Gypona cana* Burm.
Woburn, September 26.

1920—*Gypona puncticollis* Spangb.
Medford, September 12.

1930—*Xerophloea viridis* (Fabr.).
Medford, September 18.

JASSINÆ.

1933—*Aculephalus nervosus* (Schrank.).
W. Medford, July 25; Medford, August 20.

1936—*Aculephalus albifrons* (Linn.).
W. Medford, July 25; Medford, August 20.

1983—*Scaphoideus auronitens* Prov.
Arnold Arboretum, Boston, September 14.

1995—*Scaphoideus luteolus* Van D.
Concord, August 11.

1996—*Scaphoideus immistus* (Say).
Medford, August 26.

2014—*Platymetopius acutus* (Say).
Medford, September 12; Woburn, September 25–26;
Everett, September 30.

2023—*Platymetopius frontalis* Van D.
Medford, September 18; Woburn, September 23.

2053—*Deltoccephalus sayi* (Fitch).
Cambridge, September 4; Medford, September 18;
Woburn, September 26.

2063—*Deltoccephalus inimicus* (Say).
Medford, August 9; Cambridge, September 4; Everett,
September 30.

2065—*Deltoccephalus floricosta* Stal.
Cambridge, September 4.

2073—*Deltoccephalus pascuellus* (Fall) = (Minki Prov.).
Cambridge, September 4; Medford, September 18.

- 2097—*Deltoccephalus balli* Van D.
Cambridge, September 4; Medford, September 8; Melrose, September 26.
- Deltoccephalus striatus* Linn.
Medford, August 26.
- 2148—*Euscelis elongatus* (Osb.).
Saugus, October 7.
- 2156—*Euscelis curtisi* (Fitch).
Medford, August 20; Cambridge, September 7; Saugus, October 7.
- 2170—*Eutettix johnsoni* Van D.
Woburn, September 25.
- 2179—*Eutettix semiannulus* (Say).
Lexington, October 12.
- 2195—*Phlepsius majestus* O. & B.
Arnold Arboretum, Boston, September 14.
- 2223—*Phlepsius incisus* Van D.
Arnold Arboretum, Boston, September 14.
- 2228—*Phlepsius irroratus* (Say).
Medford, September 12.
- Allygus mixtus* Fabr.
W. Medford, July 21.
- 2265—*Thamnotettix clitellarius* (Say).
Saugus, September 8; Woburn, September 25–26; Lexington, October 12.
- 2312—*Thamnotettix fitchii* Van D.
Medford, September 24.
- 2314—*Thamnotettix nigrifrons* (Forbes).
Cambridge, September 4 and 13; Everett, September 30.
- 2324—*Chlorotettix unicolor* (Fitch).
Medford, September 18.
- 2327—*Chlorotettix tergatus* (Fitch).
Medford, September 26.
- 2331—*Chlorotettix galbanatus* Van D.
Medford, September 26.
- 2340—*Jassus olitorius* Say.
Woburn, August 20; Medford, August 26.

- 2359—*Cicadula lepida* Van D.
Woburn, September 25.
- 2362—*Cicadula sexnotata* (Fall).
Cambridge, September 13; Woburn, September 26;
Everett, September 30.
- 2370—*Balclutha punctata* Thumb.
Woburn, September 25.

TYPHLOCYBINI.

- 2400—*Empoasca unica* (Prov.).
Woburn, September 25.
- 2421—*Empoasca mali* (LeB.).
Woburn, September 26.
- 2422—*Empoasca flavaescens* (Fabr.).
Arlington, November 12.
- 2426—*Eupteryx melissa* Curt.
Greater Brewster Island, Boston Harbor, October 27.
- 2430a—*Empoa guerci* var. *gillettei* Van D.
W. Medford, August 26; Saugus, August 28.
- 2435—*Empoa tenerima* (H. S.).
Woburn, September 26.
- 2437—*Empoa rosa* (Linn.).
W. Medford, August 26; Woburn, September 25.
- 2445—*Erythroneura comes* (Say).
W. Medford, August 26.
- 2445b—*Erythroneura comes* var. *ziczae* Walsh.
Cambridge, August 17.
- 2445d—*Erythroneura comes* var. *basilaris* (Say).
W. Medford, August 26.

The numbers used in the preceding list are those of the Van Duzee catalogue.